



ICAO ENGINE EXHAUST EMISSIONS DATA SHEET

SUBSONIC ENGINES

ENGINE IDENTIFICATION: Trent 556-61
 UNIQUE ID NUMBER: 6RR041
 COMBUSTOR: Phase5 Tiled
 ENGINE TYPE: TF

BYPASS RATIO: 7.5
 PRESSURE RATIO (π_{00}): 36.7
 RATED THRUST (F_{00}) (kN): 261.5

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NO _x	SMOKE NUMBER
D _p /F ₀₀ (g/kN) or SN	0.2	16.6	67.2	3.7
AS % OF ORIGINAL LIMIT	1.0	14.1	59.2	20.3
AS % OF CAEP/2 LIMIT (NO _x)			74.1	
AS % OF CAEP/4 LIMIT (NO _x)			83.6	
AS % OF CAEP/6 LIMIT (NO _x)			92.8	
AS % OF CAEP/8 LIMIT (NO _x)			105.8	

DATA STATUS

- PRE-REGULATION
 x CERTIFICATION
 - REVISED (SEE REMARKS)

TEST ENGINE STATUS

x NEWLY MANUFACTURED ENGINES
 - DEDICATED ENGINES TO PRODUCTION STANDARD
 - OTHER (SEE REMARKS)

EMISSIONS STATUS

x DATA CORRECTED TO REFERENCE
 (ANNEX 16 VOLUME II)

CURRENT ENGINE STATUS

(IN PRODUCTION, IN SERVICE UNLESS OTHERWISE NOTED)
 x OUT OF PRODUCTION (DATE: 2004)
 - OUT OF SERVICE (DATE: -)

MEASURED DATA

MODE	POWER SETTING (%F ₀₀)	TIME (minutes)	FUEL FLOW (kg/s)	EMISSIONS INDICES (g/kg)			SMOKE NUMBER
				HC	CO	NO _x	
TAKE-OFF	100	0.7	2.240	0.00	0.02	44.91	2.2
CLIMB OUT	85	2.2	1.830	0.00	0.25	32.76	2.1
APPROACH	30	4.0	0.620	0.00	0.46	11.78	1.0
IDLE	7	26.0	0.230	0.10	10.30	6.19	0.8
LTO TOTAL FUEL (kg) or EMISSIONS (g)			843	36	3826	16113	-
NUMBER OF ENGINES				2	2	2	2
NUMBER OF TESTS				4	4	4	4
AVERAGE D _p /F ₀₀ (g/kN) or AVERAGE SN (MAX)				0.1	14.6	61.1	3.1
SIGMA (D _p /F ₀₀ in g/kN, or SN)				0.1	1.0	0.4	1.1
RANGE (D _p /F ₀₀ in g/kN, or SN)				0-0.2	13.9-15.3	60.8-61.4	2.3-3.9

ACCESSORY LOADS

POWER EXTRACTION 0 (kW) AT - POWER SETTINGS
 STAGE BLEED 0 (% CORE FLOW) AT - POWER SETTINGS

ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	100-102.9
TEMPERATURE (K)	275.5-280.3
ABS HUMIDITY (kg/kg)	0.0038-0.0062

FUEL

SPEC	
H/C	1.97
AROM (%)	17.6

MANUFACTURER: Rolls-Royce plc
 TEST ORGANIZATION: Rolls-Royce
 TEST LOCATION: Derby
 TEST DATES: 07/01/2002-18/01/2002

REMARKS

1. Certification report DNS 85728
2. Phase 5 tiled combustor

Compliance with Fuel Venting requirements: x ('x' if complies, 'PR' if pre-regulation, '-' if information is not available)